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Notice of Allowability

Application No.

10/725,209

Examiner

Sanza L. McClendon

Applicant(s)

GRAH ET AL.

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 9/11/2006.
2. ☒ The allowed claim(s) is/are 1-60.
3. ☒ The drawings filed on 01 December 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

DETAILED ACTION

Response to Amendment

1. In response to the Amendment received on September 9, 2006, the examiner has carefully considered the amendments. After reconsideration, the Declaration under 37 CFR 1.132 filed February 6, 2006 is sufficient to overcome the rejection of claims 1-17, 26-38, 51-57, and 60 based upon USPG Pub application 2004/0241482. Said Declaration has successfully shown the subject matter of US 2004/0241482 is not to another and thus disqualified as prior art under 35 USC 102(e).

Response to Arguments

2. Applicant's arguments, see Amendment/Declaration, filed September 9, 2006 and February 6, 2006, with respect to claims 1-17, 36-38, 52-57 and 60 have been fully considered and are persuasive. The rejection of above stated claims under 35 USC 102(e) as being anticipated by Grah et al (2004/0241482) has been withdrawn.

Terminal Disclaimer

3. The terminal disclaimer filed on February 6, 2006 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of application number 10/749,451 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Allowable Subject Matter

4. Claims 1-60 are allowed.

5. The following is an examiner's statement of reasons for allowance: In the examiner's opinion, it would not have been obvious for an artisan of ordinary skill in the art to expose a packaging film comprising single-wall carbon nanotube materials to radiation as a way to increase the gas transmission rate. While the prior art teach irradiation of polymers, such as polyethylene to increase the gas transmission rates (see Tikhomirova et al PTO-1449, dated 7/2004), the prior art does not expressly teach and/or fairly suggest the inclusion of single walled nanotube material in said methods. Additionally the prior art, such as Ding et

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al (6,861,461) suggest ionomeric nanocomposite films comprising nanostructured materials, such as single-walled and/or multi-walled nanotubes; however, there is no disclosure and/or suggestion for an artisan of ordinary skill in the art to use irradiation exposure to increase the gas transmission rates. Especially since the reference (Ding et al) teaches the compositions comprising said nanostructured materials according to the invention form packages having increased gas barrier properties compared to various conventional packaging materials—see column 15, lines 65-67 of Ding et al. There are also teachings in the prior art of dispersing carbon nanotube materials into polymer matrices, however these teaches do not expressly teach exposure to radiation nor mention/suggest increasing the gas transmission rate as suggest by the present invention. Therefore the examiner deems the instantly claimed invention is distinguished over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

6. Any inquiry concerning this communication or earlier communications from applicant should be directed to Sanza L. McClendon whose telephone number is (571) 272-1074. The examiner can normally be reached on Monday through Friday 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Sanza L. McClendon

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